DOCUMENT RESUME

ED 401 306 TM 025 860

AUTHOR Supovitz, John; MacGowan, Andrew, III
TITLE The Impact of Portfolio Assessment Policy on Early Grade Teachers in Rochester, New York.
PUB DATE May 96
NOTE 46p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Educational Policy; Educational Practices; Elementary Education; *Elementary School Teachers; *Language Arts; *Portfolio Assessment; Portfolios (Background Materials); Primary Education; *School Districts; Writing (Composition)
IDENTIFIERS *Rochester City School District NY

ABSTRACT

This paper examines the policy ramifications of district-wide portfolio assessment design and implementation in Rochester (New York). A survey of 189 primary grade Rochester teachers with respect to their beliefs about, and uses of, portfolio assessment examined the link between policy decisions and classroom practice. The major finding is that Rochester teachers report that portfolios are influencing their assessment practices, but have only a limited effect on their curriculum and instructional activities. The paper concludes with an analysis of the possible reasons for these findings and their policy implications. Appendixes describe the developmental stages in early writing and required and optional language arts portfolio pieces, and present the survey instrument. (Contains 4 tables and 25 references.) (Author/SLD)

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The Impact of Portfolio Assessment Policy on Early Grade Teachers in Rochester, New York

John Supovitz
Harvard Graduate School of Education

Andrew MacGowan III
Rochester City School District

May, 1996

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Abstract

This paper examines the policy ramifications of district-wide portfolio assessment design and implementation in Rochester, New York. Through investigation of a survey of 189 primary grade Rochester teachers with respect to their beliefs about, and uses of, portfolio assessment, and discussion with district policy makers, this study examines the link between policy decisions and classroom practice. The major finding is that Rochester teachers report that portfolios are influencing their assessment practices, but have only a limited effect on their curricular and instructional activities. The paper concludes with an analysis of the possible reasons underlying these findings and their policy implications.

The Impact of Portfolio Assessment Policy on Early Grade Teachers in Rochester, New York

I. Introduction

In the quest for better means of evaluating student learning and development, assessment has been undergoing a dramatic transformation over the past decade. Alternative forms of assessment are increasingly being used as companions to, and even replacements for, standardized norm-referenced tests. While it is generally acknowledged that assessment drives curriculum (O'Connor 1992, Shepard 1992), there is no explicit connection between curriculum and externally mandated standardized tests. Alternative assessments are a major departure from standardized tests in that they are intended to directly link curriculum, instruction, and assessment (Seligman 1989, Resnick and Resnick 1992). One specific form of alternative assessment is portfolio assessment, in which samples of student work are collected in folders to detail student progress and provide evidence of student abilities (Wiggins, 1989). Because portfolio assessment is just beginning to be widely used, little empirical evidence exists as to how district portfolio policies and implementation strategies are influencing teaching practices.

This paper examines the policy ramifications of decisions concerning primary grade district-wide portfolio assessment design and implementation in Rochester, New York. Through investigation of a survey of 189 primary grade Rochester teachers with respect

to their beliefs about, and uses of, portfolio assessment, and discussion with district policy makers, this study examines the link between policy decisions and classroom practice. For the purposes of this analysis, the district-level designers of portfolio assessment are referred to as policy makers, while administrators and teachers are considered school-level implementers. While there are limitations to a self-report instrument, this is a useful first-cut look at how implementation decisions affect practice.

The following section provides a review of the relevant portfolio assessment literature. Section III describes structure of portfolio assessment in Rochester. Section IV relates the data collected for this study. Section V details how teachers report portfolios are influencing their assessment, curricular, and instructional activities. Section VI discusses the findings of the study. The article concludes with an analysis of the policy implications stemming from the findings.

II. Review of Existing Research

Many researchers have theorized about the classroom influences of alternative assessments. Wolf, Bixby, Glenn and Gardner (1991), for example, expose the "network of activities" surrounding the "culture of testing" and suggest that assessments should be viewed not as an endpoint, but rather as an "episode of learning." More directly, proponents of alternative assessments theorize that these assessments can enrich curricula (Livingston,

Castle, and Nations, 1989), enhance instruction (Darling-Hammond and Wise 1985), promote professional development (Bloom 1990), better prepare students with "real world" skills (Resnick and Resnick, 1992), and raise standards (National Commission on Testing and Public Policy, 1990), while still providing accountability information (Baron, 1991).

Studies which empirically explore the classroom influences of portfolio assessment are just beginning to emerge. For example, in an examination of a Pittsburgh portfolio project, Wolf (1989) describes how students learn to assess their own progress as learners. Hebert (1992) reports that portfolios invite students to reflect on their work. Tierney, Carter, and Desai, (1991) relate how discussions about student work provide teachers with opportunities for professional development and shared expectations for student performance. Aschenbacher (1994), in a chronicle of assistance to teachers implementing portfolio assessment, describes the transition of teacher focus from classroom activities to student learning goals, the challenges of specifying criteria for desired student performance levels, and the realities of serious time constraints. The evaluators of the Vermont portfolio assessment program, Koretz, Stecher, Klein, and McCaffrey (1994) report that the program has had a powerful and positive influence on the instruction of many of the state's teachers, but is stretching both their time and administrative resources.

III. Portfolio Assessment in Rochester[1]

Rochester is one of the first cities in the nation to mandate portfolio assessment throughout the district. Rochester is an urban district serving approximately 9,600 students in kindergarten through second grades. The Rochester City School District (RCSD) began using portfolio assessment district-wide in kindergarten in the 1990-1991 school year. In 1991-1992, they began piloting portfolios in the first grade and, in the 1992-1993 school year they extended portfolio district-wide to the first grade as well as piloting them in the second grade. In 1993-1994 portfolios were mandated in the second grade as well. At the time of this research, portfolio assessment in Rochester has been used for four years in kindergarten, two years in first grade, and one year in second grade. The district plans to continue to roll-out portfolio assessment in higher grades as students advance through the school system.

Portfolio assessment was the product of three converging movements in Rochester which contributed to a building pressure for change of the district's assessment strategies. First was the focus, both within Rochester and nationally, on early childhood education. With a precipitous decline in the functioning level of city pupil, where by 1990, over 60 percent of entering kindergarteners had at least one serious problem in language, cognition, motor skills, vision, or hearing, RCSD leaders concluded that a focused approach on early childhood education was essential. Second was an overwhelming kindergarten teacher concern

about the effects of mandated standardized testing on young children. This resonated with district officials' concerns that standardized testing was giving an inaccurate picture of actual student competencies and thus hampering their abilities to make informed decisions on early childhood education. Third, teachers and administrators, observing a rise in student poverty and concurrent decline in the functioning level of students during the 1980s,[2] argued that the district's basal reader approach and other "traditional" instructional programs, were not meeting the needs of the changing student population. An increased focus on a developmental philosophy, of which portfolios are a key component, grew out of these factors.

The implementation of portfolio assessment in Rochester consisted of three major activities: first, the development of a primary grade educational philosophy and the evolution of developmental stages to reflect that philosophy; second, the training of teachers in both the concept of portfolio assessment and the administrative tasks involved in using portfolio assessment, and; third, the quantifying of student performance, as represented by the evidence within each portfolio, and the linking of this scale to the District's reporting system.

In 1989, then Assistant Superintendent David Hunt decided to replace the end-of-kindergarten standardized test with a form of portfolio assessment. A kindergarten portfolio committee of early grade Rochester teachers, school administrators, and district policy makers was formed to begin discussing the specifics of

portfolio assessment. The Committee first agreed upon a set of guiding principles for early grade student learning, with an emphasis on equity, based upon the notion of differential student growth and continuous developmental progress (Rochester Portfolio Committee, 1989). The Committee (and subsequent grade-level committees) received RCSD backing, in the form of release time, a budget for summer meetings, and administrative support for implementation.

Although there was no formal District mandate for a specific educational approach when using portfolio assessment, there was a curricular movement away from basal readers towards integrated language arts. In developing portfolio assessment, the Portfolio Committee adopted a "big tent" philosophy that embraced several schools of curriculum thought, including whole language, phonics, constructivism, and locally developed curricula.

Based on its philosophy, the Committee developed a series of developmental content standards for student performance. These content standards integrated the members' own experiences with national standards recommendations, New York State guidelines, and Australian literacy profiles (Rochester Teachers Handbook 1993). These content standards spelled out what children should be able to do by the end of the second grade in four subject areas: language arts, mathematics, science, and social studies. Currently, portfolio assessment has only been implemented for language arts. Content standards for students are divided into a series of "developmental stages," which are identified as stages A

through I. Each stage is a cluster of specific cues, behaviors, and skills, that describes a child at that developmental stage. The primary grade writing stages, as an example, are shown in Appendix A.

Portfolios are intended to collect concrete evidence of children's progression through the developmental stages. Rochester teachers are required to collect a series of pieces of student work and teacher commentaries that document student performance and growth throughout an academic year. These are grade dependent but, in general, language arts portfolios are required to include samples of student performance (e.g., writing and art samples), letter-sound assessments, comprehension assessments, and ongoing teacher observational notes. Each document has a minimum frequency (e.g., kindergarten students should be asked to draw a self portrait three times a year) and teachers are asked to record the date a piece was created. Appendix B shows the language arts portfolio pieces required in the primary grades.

The District approached teacher training to implement portfolio assessment in three ways. First, the District held voluntary summer institutes for teachers to discuss the content standards and developmental stages (which were, and continue to be, refined) and implementation issues. Second, at the beginning of each year that portfolios were mandated at a grade level, the District made grade-level city-wide presentations focusing on the rationales and fundamental administrative issues of portfolio assessment. Third, the District provided release time for in-

service training at individual schools for teachers to grapple with what it meant in their school to have a common set of standards for student work and performance. A cadre of district teachers who were involved with the early design and piloting of portfolio assessment were also available to discuss portfolio implementation issues.

Portfolio data is now being used by the RCSD in a number of ways. First, student portfolio work forms the basis of reporting student progress to the community. Beginning in 1993, the District changed the way it reported individual student performance to parents. Instead of the district's traditional system,[3] the primary grade report card reports the developmental stages (with Stage A as the lowest stage and Stage I as the highest stage) for language arts and math. Additionally, instead of separate report cards for each grade level, a single primary report card is now intended to show progress from kindergarten through second grade. The District standard is for children, by the end of second grade, to reach stage E in writing and speaking and listening, and stage F in reading. Parents are given a Parent Handbook which details the new report card, describes the meaning of the stages, and discusses the importance of parent/teacher portfolio conferences. The portfolio assessment system requires teachers to hold parent conferences twice yearly, focusing on the portfolio contents.

Second, individual schools use these data for long-range school improvement planning (the RCSD is now a school-based management district). Third, portfolio data are used by district

leadership for district-wide strategic-planning and decision-making. For example, the end-of-the-year developmental stage data on all primary students are collected and analyzed by the Department of Research, Evaluation, and Testing. The District is currently working to formally integrate student performance into District promotional policies and hope to use portfolio performance for Title I determination.

IV. Survey Methodology

The data for this study were collected through a survey of primary grade teachers in Rochester in the spring of 1994. The survey was developed in close coordination with the Rochester primary grade (PreK-2) Portfolio Committee, the Director of Curriculum Development and Support, and the Director of Research and Evaluation in Rochester. A Rand Corporation questionnaire (Koretz 1992) used previously to survey Vermont teachers about their portfolio use provided a framework for this instrument. The survey instrument contained 20 Likert-scale questions and six open-ended questions. The survey was first piloted with a group of 20 Rochester teachers and then distributed, through the Rochester Portfolio Committee, to the entire primary grade population. A decision to make it optional for teachers to put their names on the surveys was made to further encourage frankness of response. Appendix C contains a copy of the final survey instrument.

In early May of 1994, the survey was sent to 315 regular education kindergarten, first, and second grade teachers by

mailing it to them at their schools. In late June, an identical follow-up survey was sent to each of these teachers at their home address. All returned surveys were examined, with particular attention to responses to the open-ended questions, in an attempt to weed out duplicates; in some cases teachers identified their survey as a duplicate. One hundred and eighty-nine teachers returned their surveys, for a response rate of 60 percent. According to Babbie (1973) this is a respectable response rate for a survey of this kind. Of those 189 teachers, 69 placed their names on their survey.

Background Information on Survey Respondents

The 189 teachers who responded to the survey were fairly evenly distributed across the primary grades. Table 1 shows the grade levels of the survey respondents. It is a weakness of this study that we cannot identify the combination of grades that mixed grade level teachers teach.

These teachers had a wide range of teaching experience. For 10 of the teachers, or 5.3 percent, the 1993-1994 school year was their first year of teaching. Fourteen teachers, or 7.4 percent, had 2 to 3 years of teaching experience. Another 14 teachers had 4 to 5 years of teaching experience. Of the 189 teachers in the sample, 23, or 12 percent, had 6 to 9 years of experience. The majority of the teachers, 128, or 68 percent of the sample, had 10 or more years of teaching experience.

Table 1
Grade Levels of Survey Respondents
(n=189)

Grade Level	Number	Percent
Kindergarten	52	27.51
First Grade	69	36.51
Second Grade	56	29.63
Mixed Grades	12	6.35
Total	189	100.00

While many teachers who responded to the survey expressed reservations about the form of portfolio assessment being used in the district, early grade Rochester teachers reported overwhelmingly support for the concept of portfolio assessment. When asked on the survey "Philosophically, do you support the concept of portfolio assessment?" the majority responded in the affirmative. Of the 188 teachers who responded to this question, 72 teachers, or 38 percent, strongly support the concept of portfolio assessment; 65 teachers, or an additional 35 percent, somewhat support the portfolio concept; 15 teachers, or 8 percent, were neutral; 28 teachers, or 15 percent do not support the concept of portfolio assessment; while 8 teachers, or 4 percent strongly disapprove of the concept of portfolio assessment. There were no distinctions in teacher responses by grade levels (Kruskal-Wallis = 3.51, *d.f.* = 2, *p* = .173).

Issues of Generalizability

Before statements can be made with any confidence about how representative the responding teachers are of the population of Rochester teachers, comparisons of demographic characteristics between the survey respondents and the rest of the population of primary grade Rochester teachers were performed. Because of weaknesses in the survey design, we could not compare the surveyed teachers directly to the rest of the primary grade teaching population in the district. In lieu, we followed a two step process to assess generalizability. First, we compared the teachers who gave their names on the survey to the rest of the primary grade teaching population in the RCSD. Finding no differences between these groups, we next compared the teachers who gave their names on the survey to the rest of the teachers who completed the survey.

Our first comparison was between those teachers who reported their names on the survey (n=69) and all other primary grade Rochester teachers (n=246). Since information on gender, years of education, and years of teaching experience was available for all the teachers in the district, we were able to compare these two groups across these variables. Table 2 shows a multivariate analysis of variance (MANOVA) comparing the survey respondents to all Rochester teachers.

Table 2

Multivariate Analysis of Variance Comparing Named Survey Respondents to All Other Rochester Teachers (n=315)

Variable	Named Survey Respondents Mean (n=69)	All Other Rochester Teachers Mean (n=246)	F-Value
Grade	1.98	2.14	1.93
Gender (F)	.94	.96	.73
Education	17.48	17.55	.19
Experience	14.06	16.59	3.40~

~ p<.10 *p<.05 **p<.01 ***p<.001

None of the four comparisons between the two groups were statistically significantly different at the .05 level, although the named survey respondents were slightly less experienced than the other Rochester teachers. Therefore, we cannot reject the hypothesis that the groups do not represent the same population.

Because the named survey respondents do not appear different than all primary teachers, we moved to our second step of conducting a second MANOVA test to determine whether the 120 survey respondents who completed the survey anonymously differed from the sub-group of the 69 survey respondents who gave their names. Here we had less information to go on, since the survey only included information on teachers' grade and teaching experience. Table 3 shows a comparison between the survey respondents and those teachers who gave their names. While the grade levels did not differ between the two groups, the teachers who responded

anonymously to the survey had significantly more experience than those who gave their names on the survey.

Table 3

Multivariate Analysis of Variance Comparing Named Survey Respondents to All Other Survey Respondents (n=189)

Variable	Named Survey Respondents Mean (n=69)	All Other Rochester Teachers Who Responded to the Survey Mean (n=120)	F-Value
Grade	2.07	2.19	.77
Experience	4.03	4.45	5.51*

~ p<.10 *p<.05 **p<.01 ***p<.001

NOTE: Experience on the survey was on a five point scale. See question 2 in Appendix C for an explanation of these numbers.

V. Results From Survey of Rochester Teachers

This section contains an analysis of teacher responses to survey questions. It focuses on three basic educational activities: assessment, instruction, and curriculum. Comparisons are made both within and across grade levels. The 12 teachers who reported teaching mixed grades (six percent of the sample of 189 teachers) were included in the aggregate data, but were omitted from grade level comparisons because it was not known what combinations of grades they taught.

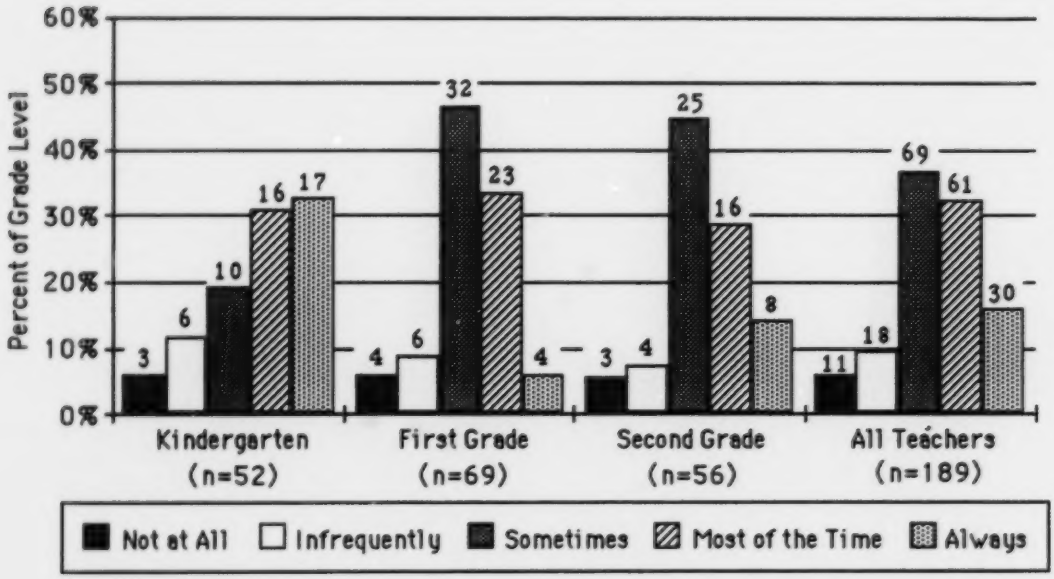
Influence on assessment practices

One main purpose of portfolio assessment is to more directly assess student skills. Portfolios are designed to contain samples of student work which provide authentic evidence of student performance (Wiggins, 1989). In comparison to standardized tests, where items are sometimes proxies for student capabilities (for example, correct grammar as a measure of effective writing), portfolios are intended to evaluate students' real-life skills (Resnick and Resnick 1992).

The majority of teachers in Rochester state they are using portfolios to assess their students. Figure 1 shows Rochester primary grade teacher responses, by grade level, to the statement: "I use portfolios to make assessments of student progress." So that comparisons can be made between teacher responses across grade levels, the bars are scaled according to the percentage of respondents giving that answer within each grade level. The numbers at the top of each bar represent the number of teachers in that grade level who gave that response. For example, in Figure 1, three out of 52 kindergarten teachers reported that they never use portfolios to assess student progress. These three respondents represent approximately six percent of the kindergarten teachers who responded to the survey. The discrepancy between the combined numbers of the three grade levels and the set of bars depicting "all teachers" represents the small number of mixed grade teachers who are not detailed in this figure.

Figure 1

Teacher Responses to the Statement: "I use portfolios to make assessments of student progress" (Percents are by Grade Level Taught) (n=189)



Focusing on the set of bars on the far right of Figure 1, 91 teachers, or 48 percent, reported that they used portfolios "most of the time" or "always" to make assessments of student progress. Another 69 teachers, or 37 percent, indicated that they sometimes used portfolios to make assessments of student progress. Only 16 percent indicated that they used portfolios "infrequently" or "not at all" for assessing students.

A comparison of the responses of kindergarten, first, and second grade teachers indicates that kindergarten teachers reported using portfolios more for assessment of student progress than did either first or second grade teachers. This was

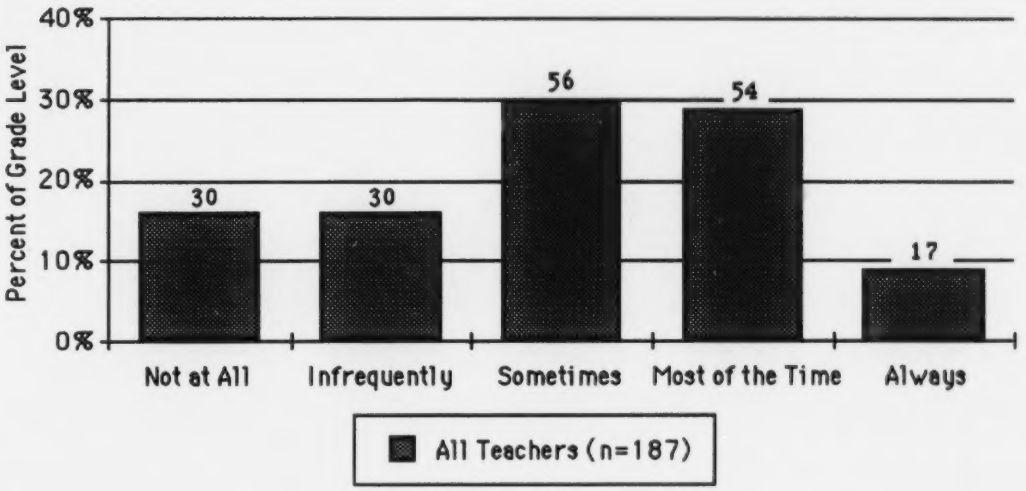
statistically confirmed with a Kruskal-Wallis (K-W) test (K-W = 7.99, *d.f.* = 2, *p* = .018). This may be because, at the time of the survey, kindergarten teachers had been using portfolios longer (for four years) than either first grade (two years) or second grade teachers (one year). There was no statistical difference between the responses of the first and second grade teachers (Mann-Whitney U = .585, *d.f.* = 1, *p* = .444).

In explaining how they used portfolios to assess students, teachers reported in their open-ended responses that the main function that portfolios served is as a means of documenting student growth. For one kindergarten teacher this means to "Set samples of the child's work side by side and note the areas in which the child has improved." Another typical response was to "use beginning, middle, and end of year samples of same tasks to compare progress and measure growth."

Another indicator of whether teachers are utilizing portfolios to assess students is whether teachers are using portfolios to help them identify the developmental level of their students. The term "developmental level" refers specifically to the criteria that the district has constructed to measure student progress. Figure 2 shows teacher responses to the statement: "I know the developmental level of a child in key areas because of portfolio assessment." Because there was no difference between grade level responses to this question (K-W = 3.36, *d.f.* = 2, *p* = .186), responses are reported aggregated across grades.

Figure 2

Teacher Responses to the Statement: "I know the developmental level of a child in key areas because of portfolio assessment" (n=187)



Teachers report that portfolios help them identify the developmental level of their students. Seventy-one of the teachers, or 38 percent, responded that portfolios assist them in identifying the developmental level of their children most of the time or always. These teachers indicated that this form of assessment encourages specificity and greater accuracy in assessment. For example, one kindergarten teacher wrote that portfolios allow her "to make finer and more accurate observations of each child." A second grade teacher indicated that "the portfolio is a useful lens by which developmental growth can be viewed." Another teacher stated "My assessments of students are

more specific because of the portfolio guidelines." A second grade teacher commented that "the letter-sound assessment pin-points the exact strengths and needs that a child has in the area of phonics."

On the other hand, 60 out of the 187 teachers, or 32 percent, indicated that portfolios never or infrequently assist them in knowing the developmental level of their pupils. These teachers generally cited three barriers to the use of portfolios as assessment tools. The first was the time involved with portfolios. As one typical response stated, "I do not use portfolios as a means for assessment. There is not enough time in a day to use a portfolio system. Therefore, I choose to TEACH and TEST." (Original emphases).

The second barrier is that some teachers see no connection between portfolio assessment and traditional conceptions of academic achievement. As one kindergarten teacher stated, "I have to add my own testing of children to really find out where a child is at. What is being asked for has little relevance to how a child is academically achieving." The third impediment cited by teachers is flaws in the Rochester system of portfolio assessment. According to one first grade teacher, the "descriptors are too vague and are open to a wide range of interpretation by teachers. They do not reflect how well the child is doing at that stage."

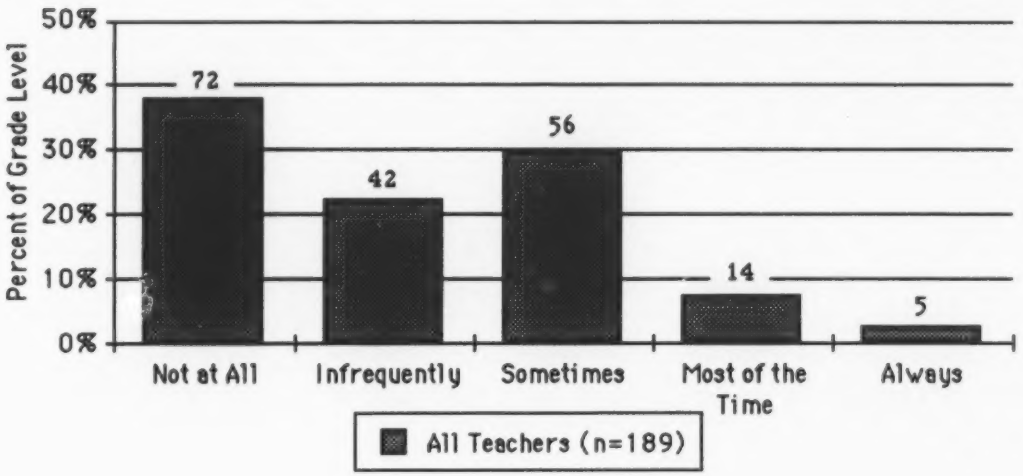
Influence on Instruction

The literature on alternative forms of assessment suggests that these assessments can strongly influence teachers' instructional practices in the classroom. For example, Seligman (1989) theorized that alternative assessments clarify instructional objectives by focusing teachers on student skills. Farr (1990) noted that alternative forms of assessment can encourage teachers to adjust instruction to the needs of the child. In Rochester, however, teacher survey responses indicate that teachers do not perceive that portfolio assessment is having a great deal of influence on their instruction.

Rochester teachers generally do not seem to feel that portfolios have influenced their instruction. Figure 3 shows teacher responses to the statement: "The use of portfolios has changed my instruction." Only 19 out of the 187 teachers who responded to this question, or 10 percent, indicated that portfolios have changed their instruction always or most of the time. Fifty-six, or 30 percent of the responding teachers, indicated that the use of portfolios has "sometimes" influenced their instruction. Expanding on this, typical teacher responses included "Basically, my instructional program is not dependent on the portfolio," and "My instructional practices have not been influenced by portfolio assessment."

Figure 3

Teacher Responses to Statement:
"The use of portfolios has changed my instruction"
(N=187)



The instructional changes that teachers described as a result of portfolio assessment centered upon more individualized and small group instruction and more writing activities. According to one kindergarten teacher "I feel I know my students much better. . . . I'm constantly trying to draw out the original or creative responses, looking for the individual kid's uniqueness and/or strengths." Many other teachers mentioned more small group instruction. "I have done more small group instruction and/or observation, while the rest of the class is busy at various centers," commented one kindergarten teacher. Another teacher explained, "Small groups are formed based on student needs (remediation and acceleration) from performance tasks. Activities

are now built-in (planned) to give me the opportunity to observe the descriptors on the stage cards."

Several teachers mentioned an increase in writing instruction. "I do far fewer worksheets - much more writing assignments," explained one first grade teacher. There was also a group of teachers who changed the structure of their classes, but not really their instructional style. One typical response in this vein was "I have to have certain requirements in the portfolios so my instruction changes to fit them."

A few written responses by teachers point to the weakness of this particular question as a measure of the influence of portfolios on instruction. For example, a few teachers explained that portfolios had not changed their instructional practices because, as one put it "I feel portfolio assessments have finally caught up with good, sound, hands-on early childhood teaching." Other teachers, by contrast, argued that portfolios had a negative influence on instruction. According to one kindergarten teacher, "My instruction has been influenced because of the time I spend on the portfolio pieces and the end of year summary. It [portfolio assessment] has been a negative influence on instruction."

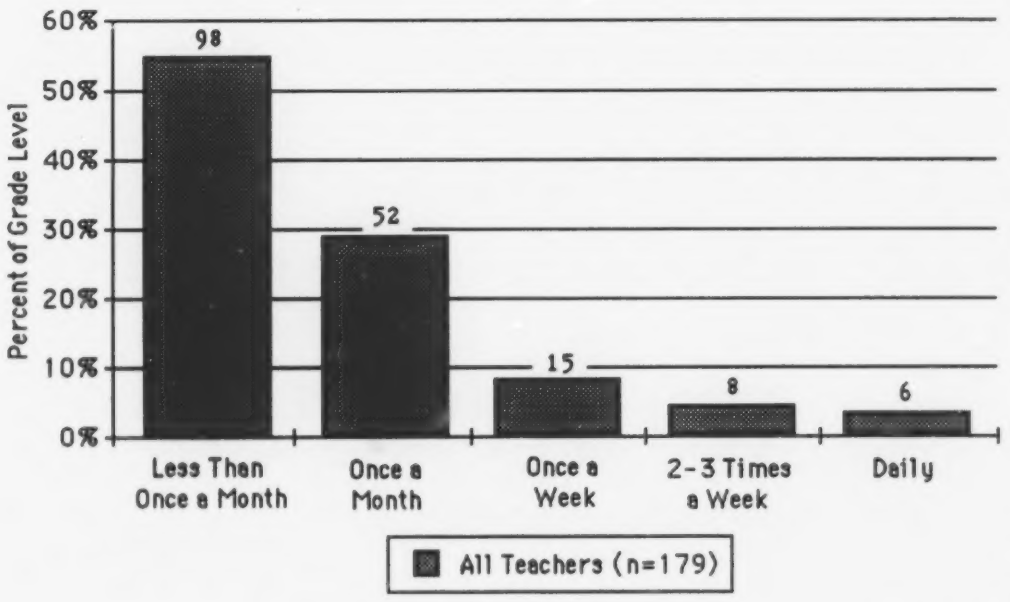
Therefore, perhaps a better way of examining the influence of portfolios on instruction is to find out how frequently teachers use portfolios as a teaching tool. Rochester teachers did not report using portfolios as teaching tools very often. Figure 4 depicts the frequencies that teachers reported using portfolios as a teaching tool. Responses are aggregated because there were no

differences between grade levels in teacher uses of portfolios as a teaching tool (K-W = 3.28, *d.f.* = 2, *p* = .194).

Ninety-eight of the responding teachers, or 85 percent, reported that they only employed portfolios as a teaching tool once a month or less. As one teacher said, "There is too much paperwork, which leaves me less time to plan effective use of portfolios." Only 29 of the 179 teachers who answered this question reported using portfolios as a teaching tool at least once a week. As one teacher commented "I use the developmental stages as a guide to individualize teaching for students."

Figure 4

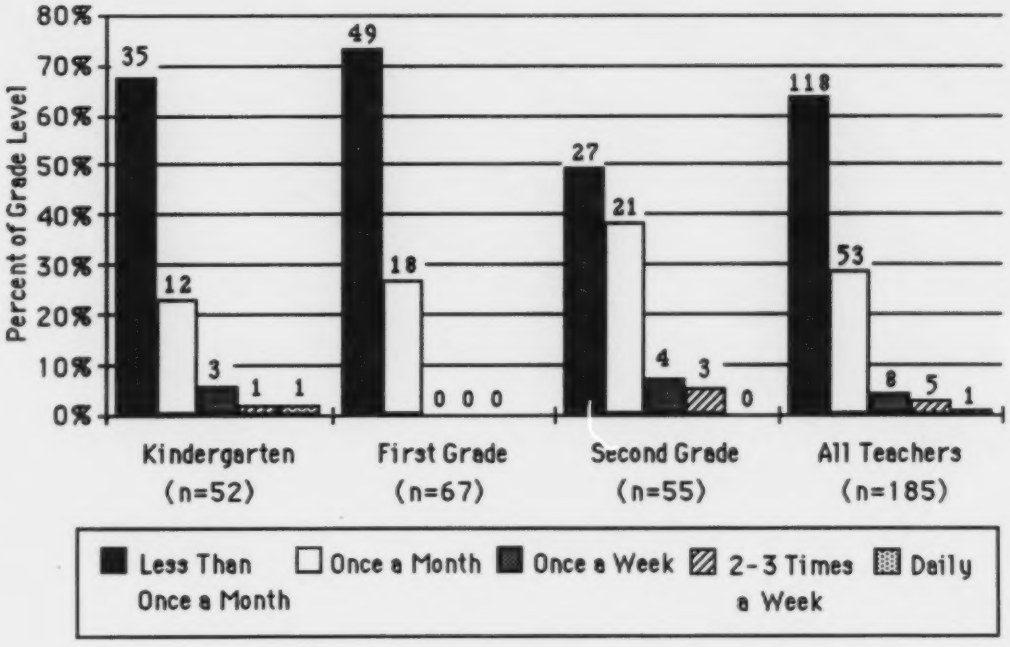
Frequency of Teacher Use of Portfolios as a Teaching Tool (n=179)



A final indicator examined in this study of the extent of teacher use of portfolios for instructional purposes is how frequently teachers talk with students about their portfolios. Teachers did not report talking with students very often about the work in their portfolios. Figure 5 shows the frequency that teachers talk to students about their portfolios.

Figure 5

Frequency that teachers talk to their students about the work inside their portfolios (n=185)



Eighty-eight percent of the responding teachers, 162 out of 185, reported only talking to their students about the work inside their portfolios once a month or less. Only 14 of the 185 teachers, or eight percent, reported talking to students about the

work inside their portfolios once a week or more. According to one teacher who did, "It has made my teaching more child-centered and developmentally appropriate. The children now drive what I teach, not the basal." Another teacher felt that the students were motivated by their portfolios: "The students get excited to see their work in the portfolio and are encouraged to see their success. They try harder because they want nice work to go in the portfolio."

A comparison of the responses of kindergarten, first, and second grade teachers indicates that kindergarten and second grade teachers talk with students about the work in their portfolios more than first grade teachers (K-W = 9.32, *d.f.* = 2, *p* = .009). This may be because kindergarten teachers have had the most time to adjust to using portfolio assessment, and second grade teachers were trained most recently. First grade teachers, however, did not receive training as extensive as their kindergarten counterparts. There was no statistically significant difference between the kindergarten and second grade teachers (Mann-Whitney U = 3.11, *d.f.* = 1, *p* = .078).

Influence on Curricula

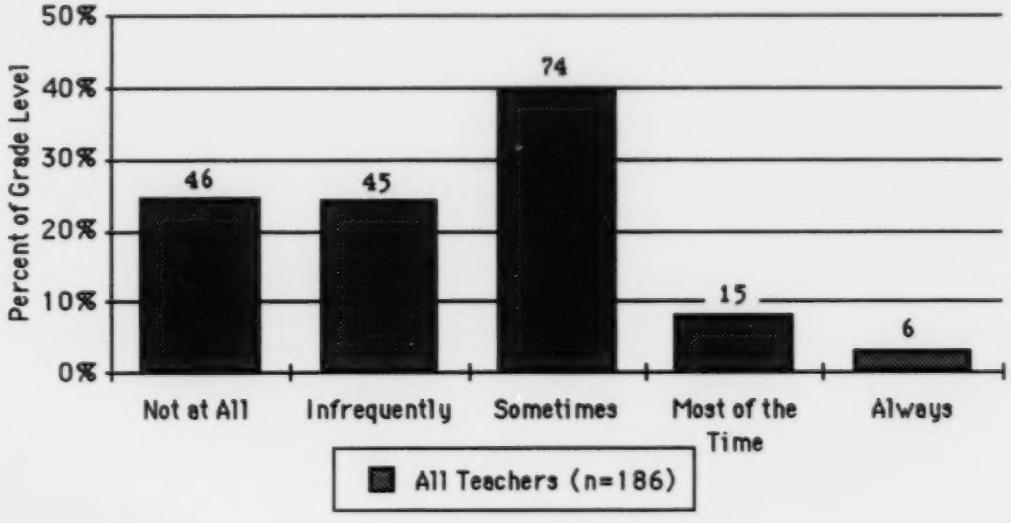
Proponents of alternative assessments state that authentic assessment can enrich curricula (Livingston et al. 1989). For example, Wolf, LeMahieu, and Eresh (1992) report that classes using portfolio assessment have more sustained projects. Resnick and Resnick (1992) argue that performance assessments can encourage the

replacement of the current "routinized curriculum" with a "thinking curriculum" and propose to "place curriculum at the heart of assessment decisions" (pages 59-60). Portfolios have been identified as one of the top three curriculum trends by the Association for Supervision and Curriculum Development (Vavrus 1990).

Rochester teachers, however, did not report that portfolios are having a large influence on their curricula. For example, when asked if they use student portfolios to develop their lesson plans, teachers did not do so with much frequency. Figure 6 shows teacher responses to the statement: "I use student portfolios to develop my lesson plans."

Figure 6

Teacher Responses to Statement:
"I use Student Portfolios to Develop my Lesson Plans"
(n=186)



Ninety-one of the 186 teachers who responded to this question, or 49 percent, never or infrequently use portfolios to develop their lesson plans. In their written responses, teachers expressed uncertainty as to why portfolios would influence curricula. As one first grade teacher explained, "I'm not sure that portfolios are the type of assessment that would influence curricula. Portfolios are more global ... as far as influencing daily lessons, I'm not sure that they would do that." Another teacher rhetorically asked, "There are many demands and materials added to the basic skills to be taught - is this necessary or just extra work?" Other teachers, however, described how portfolios had become a curricular component. According to one kindergarten teacher, "The portfolio has made my teaching more child-centered and developmentally appropriate. The children's work now drives what I teach, not the basal."

Relationship Between Teacher Experience, Support of Portfolio Concept, and Survey Responses

Teacher survey responses about their use of portfolios as assessment, curricular, and instructional tools were related to both their support of the concept of portfolio assessment and their years of teaching experience. Table 4 shows the Spearman Correlations between the survey questions about teacher use of portfolios for assessment, instruction and curriculum and teacher support of the concept of portfolio assessment and teacher experience.

Table 4

Spearman Correlations Depicting Relationship Between Survey Questions and Support of the Concept of Portfolio Assessment and Teacher Experience

Survey Question	Support of Portfolio Concept	Teacher Experience
Support of Concept of Portfolio Assessment	1.00	-.34
Use of Portfolios to Assess Student Progress	.62	-.24
Knowledge of Developmental Level of Child Due to Portfolio Assessment	.55	-.28
Change in Instruction Due to Portfolio Assessment	.39	-.13
Frequency of Use of Portfolios as a Teaching Tool	.33	-.09
Frequency of Discussion with Students about the Work Inside Their Portfolios	.23	-.11
Use of Student Portfolios to Develop Lesson Plans	.43	-.15

As can be seen from the first column of correlations, teachers who support the concept of portfolio assessment tend to use portfolios more frequently for assessment, instruction and curriculum. The second column indicates the opposite. Teachers with more experience tend to use portfolios less for assessment, instruction and curriculum. This relationship is compactly summed up in the -.34 correlation between teacher support of the concept of portfolio assessment and teacher experience; less experienced, probably younger, teachers are more likely to support the concept of portfolio assessment than are more experienced teachers.

Summary

The general pattern that emerged from teacher survey responses, in both their Likert-scale responses and written comments, is that portfolios are having a strong impact on the assessment practices of Rochester primary grade teachers, but only a smaller influence on their curricular and instructional practices. Before exploring the reasons underneath these findings, we should ask to what extent we would expect teachers to change their behavior due to portfolio assessment? It is important to remember here that the Rochester reform is mandated across all primary teachers in the district, a quite different situation from a voluntary initiative. One Rochester teacher who reviewed the survey instrument suggested that, due to the mandated nature of portfolio assessment in Rochester, we should expect all teacher responses to be "always." However, the remarkable variation in teacher survey responses to most survey questions suggests both that teachers were candid in their responses and that portfolio assessment, although ubiquitous at the mechanical level, is absorbed to varying degrees within the context of school culture.

VI. Discussion

Rochester teachers strongly report that portfolios are influencing their assessment practices. Since the original emphasis of portfolios in Rochester was their role as assessment devices, it is encouraging that primary teachers' overwhelmingly

report using them to assess children. Rochester administrators attribute the different grade-level responses (that kindergarten teachers report using portfolios as assessment tools more than do first or second grade teachers) to the fact that the school district leadership committed far more financial and administrative resources to kindergarten, and the fact that kindergarten teachers have been using portfolios longer.

But why are portfolios having a lesser effect on Rochester teachers' curricular and instructional activities? There are at least three hypotheses that might explain this. The first possible explanation is to take the data at face value - that Rochester teachers are really not using portfolios as curricular and instructional aides. This may be due to the way that the portfolio system is constructed in Rochester, with its series of required portfolio pieces and suggested completion dates. It is plausible for Rochester teachers to fulfill the required portfolio pieces without necessarily changing their instructional or curricular strategies. As one first grade teacher commented on the survey: "My instruction has not been influenced by the portfolios. I simply try to keep up with the due dates for the specified required pieces and try to give the assessments when I have perfect attendance. I use it for evaluation and progress, not instruction."

By contrast, Vermont's more flexible portfolio program has been reported to have a deeper impact on instruction. In Vermont there are no specific pieces of student work that teachers are

required to include in student portfolios, but rather they are challenged to provide evidence, based on agreed upon standards, of student skills and capabilities. Koretz, Stecher, Klein, and McCaffrey (1994) report survey data which indicates that the Vermont portfolio program has had a strong influence on the instructional practices of many teachers.

A second hypothesis to explain the findings is that significant change occurs more slowly over a period of time. According to Hall and Loucks (1977), "change is a process, not an event," which evolves over time from an awareness of a reform to actual refocusing of strategies. Under this theory, Rochester teachers may initially adopt the mechanics of the innovation and only when they are comfortable with the administrative functions of portfolio assessment can they begin to adopt it in deeper, more complex ways. Since portfolios in Rochester, at the time of the survey, have been implemented in second grade for only one year, for two years in first grade, and for four years in kindergarten, the second hypothesis can be tested. If the hypothesis of teacher adjustment is valid, then there should be differences between grade levels in collective responses to the survey questions concerning the influence of portfolio assessment on assessment, curricula, and instructional activities. However, a comparison of cumulative responses by grade level indicates there are no differences in teacher responses to the questions about assessment, instruction, and curricula in the survey (K-W = 3.60, $d.f.$ = 2, p = .165).[4] Yet it is still possible, however, that it is

too early on the implementation curve for teachers to integrate portfolios into their curriculum and instruction. A follow-up survey would be able to confirm or reject this theory.

The third hypothesis is that, because portfolio assessment was introduced by the RCSD Department of Research, Evaluation and Testing, and initially conceived of as a replacement for standardized testing, that teachers do not perceive, and therefore do not report, that portfolio assessment is influencing their curricular and instructional activities. When we discussed these data with both district policy makers and a focus group of 20 primary grade Rochester teachers, they generally leaned towards this explanation of the findings. Many commented that they felt it was impossible to use portfolio assessment without having some influence on teaching practices. As one first grade teacher involved with the design of the portfolio system explained the original intent, "If you are going to use the portfolio correctly in the classroom, you have to change your teaching practice. You can't teach in the 'traditional way' and do the portfolio as well."

VII. Policy Implications

Regardless of the explanation, the fact that teachers perceive that portfolio assessment is influencing their assessment practices, but not their curricular or instructional activities has important implications for school administrators and policy makers. Policy makers have to conceive, and administrators have to consider

how to implement an innovation, such as portfolio assessment, which is designed to integrate many of the core components of classroom education (assessment, instruction, and curricula). From this research it appears that the signals which emanate from these implementation decisions are received by classroom teachers. The message from this research is that, if policy makers and administrators overly emphasize the assessment component, then teachers are likely to respond as did those in Rochester. If administrators implement portfolios more as a instructional device, then the assessment component may suffer.

This policy dilemma is further exacerbated by three additional complexities. One is the historical practice of discussing and implementing curricular, instructional, and assessment reforms as if they were unrelated activities for classroom teachers. The second is our limited knowledge of how to explicitly connect curriculum and instruction to portfolio assessment. This area certainly warrants further investigation. The third is the particular pressures of the situation where short-term expediency may call for emphasis on one component of a more complex equation. In the case of Rochester, which has a history of changing its early grade instructional programs every 3-5 years, portfolios were greeted with a certain amount of skepticism. Because of the short policy cycle, policy makers saw a greater opportunity for immediate administrator and teacher acceptance by focusing on assessment reform. As this study shows, this approach has longer term consequences.

The problem of how to design and implement portfolio assessment can be viewed as one issue within a larger set of questions involving how to develop closer links between curricular, instructional, and assessment activities which are traditionally viewed as separate educational operations. If policy makers want teachers to engage in serious dialogue over professional judgment and student standards which has the likelihood of resulting in re-evaluation of the complex combination of instructional, curricular, and assessment activities which occur in classrooms, then policy makers must strategize, and administrators must model, this balanced inter-relationship in their design, introduction and roll-out.

Appendix A
Developmental Stages A-E for Writing

As children master the outcomes, they move through developmental stages. While not rigid, the stages are described by behaviors that tend to cluster. Children's portfolios should contain concrete evidence of their progression through the stages.

STAGE A
- Explains marks made on paper with crayons, markers, pencils.
- Draws pictures and names what is drawn (even if recognizable only to child).
- Combines drawing and "writing."
- Shows interest in letters.

STAGE B
- Repeats the names of letters as teacher writes them.
- Recognizes letters in own name independently.
- Recognizes that drawing is different from writing.
- Uses letters or letter-like forms randomly to convey a message; is able to "read" the message.
- Copies words from the environment.

STAGE C
- Writes in a horizontal fashion--left to right, top to bottom.
- Writes legibly using spaces between words.
- Shows evidence of initial awareness of beginning and some ending sounds.
- Uses invented spelling; uses more than one letter sound to a word.
- Investigates spellings of words.
- Writes words in a logical order to make a sentence that can be read.

STAGE D
- Reads own written work to self and/or others; reflects on own written work.
- Usually keeps to the topic when writing stories that have a beginning, middle, and an end.
- Produces independent pieces of writing some of the time.
- Spells accurately words used most frequently and consistently makes informed attempts to spell unknown words.
- Begins to experiment with writing for different purposes, different audiences.
- Writes about feelings and direct experiences.
- Uses reality and imagination to create characters/situations when writing.
- Begins to support own opinions in writing.

STAGE E
- Produces independent pieces of writing using the conventions of English (spelling, capitalization, end punctuation, quotation marks) most of time.
- Develops ideas into paragraphs.
- Writes effectively on a variety of topics with audience, purpose in mind.
- Writes in a variety of genres--poems, journals, letters, invitations.
- Makes appropriate shifts from first to third person in writing, sometimes experimenting with dialogue.
- Edits work to the point where others can read it.
- Begins to use dictionary, thesaurus, word checker to assist in vocabulary and spelling.
- Summarizes the essential facts and ideas of a text in writing.
- Expresses an opinion with convincing support.

Appendix B
Required and Optional Language Arts Portfolio Pieces Primary Grades

Kindergarten
- Required Pieces
  - Kindergarten Screening Report 1x/year
  - Self-Portrait 3x/year
  - Writing (scribbles, copied words, dictated and copied story, word lists, etc.) ..... Ongoing
  - Printing of name 2x/year
  - Art (line drawing, child's choice of art, etc.) 1x/year
  - Written numbers and letters..... 2x/year
  - Art depiction of a story..... 1x/year
  - Developmental stage designations..... Ongoing
  - Anecdotal Observations 2x/year
  - Summary of Observations ..... June
  - Language arts reporting form..... June
- Optional Pieces
  - Self-evaluation, Reading logs, Photographs, Documentation per teacher choice, Summary of major parent conferences

First Grade
- Required Pieces
  - Letter/sound assessment..... 3x/year
  - Comprehension assessment..... 1x/year
  - Writing samples..... 3x/year
  - art/self-portrait..... 2x/year
  - Developmental stage designations..... Ongoing
  - Anecdotal observation form..... 2x/year
  - Anecdotal summary sheet..... June
  - Language arts reporting form..... June
- Optional Pieces
  - Self-evaluation, Reading logs, Photographs, Documentation per teacher choice, Summary of major parent conferences, Reading survey, Oral reading summary

Second Grade
- Required Pieces
  - Letter/sound assessment..... 3x/year
  - Independent writing assesment..... 3x/year
  - Comprehension assessment..... 2x/year
  - Art/self-portrait..... 2x/year
  - Developmental stage designations..... Ongoing
  - Self-evaluation..... 2x/year
  - Reading log..... Ongoing
  - Anecdotal Observations 2x/year
  - Summary of Observations ..... June
  - Language arts reporting form..... June
- Optional Pieces
  - Photographs, Documentation per teacher choice, Oral reading summary

Appendix C

Survey Instrument

Appendix C

Continued

References

Aschenbacher, P.R. (1994). Helping Educators to Develop and Use Alternative Assessments: Barriers and Facilitators. *Educational Policy* 8(2):202-223.

Babbie, E.R. (1973). *Survey Research Methods*. Belmont, CA: Wadsworth Publishing.

Baron, J.B. (1991). Strategies for the Development of Effective Performance Exercises. *Applied Measurement in Education* 4(4):305-318.

Bloom, D. (1990). "State Policy and Authentic Writing Assessment." Paper prented at a National symposium co-hosted by Phi Delta Kappa and ERIC/RCS, Bloomington, IN 8/27/90. ERIC Document ED339044.

Darling-Hammond, L. and Wise, A. (1985). Beyond Standardization: State Standards and School Improvement. *Elementary School Journal* 85:315-336.

Farr, R. (1990). *Current Issues in Alternative Assessment*. A National Symposium Co-hosted by Phi Delta Kappa and ERIC/RCS, Bloomington, IN. 8/27/90. ERIC Document ED339044.

Hall, G., and Loucks, S. (1977). A developmental model for determining whether the treatment is actually implemented. *American Educational Research Journal*, 14:263-276.

Hebert, E.A. (1992). Portfolios Invite Reflection from Students and Staff. *Educational Leadership* 49(8): 58-61.

Koretz, D. (1992) "The Vermont Portfolio Assessment Program: Interim Report on Implementation and Impact, 1991-92 School Year." (pp.48-53). Santa Monica, CA: Rand Corporation.

Koretz, D. Stecher, B. Klein, S. and McCaffrey, D. (1994). The Vermont Portfolio Assessment Program: Findings and Implications. Educational Measurement: Issues and Practice 13(3): 5-16.

Lamme, L.L. & Hysmith, C. (1991). "One School's Adventure into Portfolio Assessment." *Language Arts* 68:629-640.

Livingston, C., Castle, S., & Nations, J. (1989). "Testing and Curriculum Reform: One School's Experience." *Educational Leadership* 46(7):23-26.

National Commission on Testing and Public Policy (1990). *From Gatekeeper to Gateway: Transforming Testing in America.* National Commission on Testing and Public Policy, Boston College, Chestnut Hill, MA: Author.

O'Connor, M.C. (1992). "Rethinking Aptitude, Achievement and Instruction: Cognitive Science Research and the Framing of Assessment Policy." In Gifford, B. and O'Connor, M.C. (Eds.) *Changing Assessments: Alternative Views of Aptitude, Achievement and Instruction.* (pp. 9-35). Boston, MA: Kluwer Academic Publishers.

Resnick, L. B. & Resnick, D. P.(1992). "Assessing the Thinking Curriculum: New Tools for Educational Reform." In Gifford, B. and O'Connor, M.C. (Eds.) *Changing Assessments: Alternative Views of Aptitude, Achievement and Instruction.* (pp. 37-75). Boston, MA: Kluwer Academic Publishers.

Rochester Portfolio Committee. (December 1989). "The Philosophy of the Kindergarten Portfolio Assessment Committee."

Rochester Teachers Handbook (1993). *Rochester City School District: Goals, Outcomes, Measures, Standards.*

Seligman, D. (1989). "A Look at Student Achievement from the School Dimension: Demythologizing Standardized Tests." Austin, TX: Southwest Educational Development Laboratory. ERIC Document ED317562

Shepard, L.A.(1992). "What Policy Makers who Mandate Tests Should Know About the New Psychology of Intellectual Ability and Learning." In Gifford, B. and O'Connor, M.C. (Eds.) *Changing Assessments: Alternative Views of Aptitude, Achievement and Instruction.* (pp. 301-328). Boston, MA: Kluwer Academic Publishers.

Tierney, R.J., Carter, M.A., and Desai, L.E. (1991). Portfolio Assessment in the Reading-Writing Classroom. Norwood, MA: Christopher-Gordon.

Vavrus, L. (1990). "Put Portfolios to the Test." *Instructor.* 100(1): 48-53.

Wiggins, G. (1989). "A true test: Toward more authentic and equitable assessment." *Phi Delta Kappan* 70:703-713.

Wolf, D.P. (1989). Portfolio Assessment: Sampling Student Work. *Educational Leadership* 46(7):35-39.

Wolf, D.P., Bixby, J., & Gardner, H. (1991). To use their minds well: Investigating new forms of student assessment. In Grant, G. (Ed.), Review of Research in Education (Vol. 17, pp. 31-74). Washington, D.C.: American Educational Research Association.

Wolf, D.P., LeMahieu, P.G., & Eresh, J. (1992). "Good Measure: Assessment as a Tool for Educational Reform." *Educational Leadership*. 49(8):8-13.

Author Note

The findings and conclusions of this paper are solely those of the authors and do not necessarily reflect those of the Rochester City School District. We would like to thank the many Rochester teachers who helped to devise and refine the survey instrument used in this study. Dr. Jean Slattery and Ann Pinella Brown of the Rochester City School District, as well as the Best Practice Teams of Rochester teachers, were exceptionally thoughtful in their discussion of the survey findings. Richard Elmore and Dennie Wolf at the Harvard Graduate School of Education provided valuable advice on this project from its inception. Finally, we are especially indebted to Robert Brennan of Harvard University for his insightful comments and careful editing.

End Notes

[1] The information for this section comes from interviews with Dr. Jean Slattery, Rochester's Supervising Director of Curriculum Development and Support, Ann Pinnella-Brown, the Coordinating Director Research, Evaluation, and Testing, and Project Administrator Andrew MacGowan, during October, 1994, as well as examination of district documents.

[2] In 1980, fewer than one quarter of students in Rochester were eligible for free and reduced lunch. Today, over 75% of students are eligible for free/reduced lunch. Additionally, by the late 1980s approximately 50% of the kindergarten students had serious deficiencies in the areas of language, cognition, motor skills, vision, and/or hearing.

[3] Based on a three stage scale of satisfactory, needs to improve, and unsatisfactory.

[4] This analysis was done by adding up teacher responses to survey questions on assessment (questions 13 and 14), instruction (questions 12, 18, and 19), and curricula (question 10). Totals ranged from 7 to 30. This range was then reduced to three categories (low, medium, and high) by examining the distribution of responses.